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PROCEEDINGS

OF THE

AMERICAN PHILOSOPHICAL SOCIETY,

HELD AT PHILADELPHIA,

FOR

PROMOTING USEFUL KNOWLEDGE.

VOL. IV.

JUNE, 1843, TO DECEMBER, 1847.

PHILADELPHIA:
PRINTED FOR THE SOCIETY,
By John C. Clark, 60 Dock Street.
1847.

General Exch. Society

NOTICE.

Devises and Legacies to the Society should be made in its corporate title—"The American Philosophical Society, held at Philadelphia, for Promoting Useful Knowledge."

Donations intended for the Society, should be addressed to "The American Philosophical Society; care of the Librarian, Philadelphia." If left with any of the following named persons, who have kindly offered their services on behalf of the Society, they will be promptly forwarded:

LONDON. William Vaughan, Esq., Fenchurch Street.

PARIS. Hector Bossange, Esq., Bookseller, Quai Voltaire.

HAMBURG. John Cuthbert, Esq., Consul of the United States.

LEGHORN. John B. Sartori, Esq., Merchant.

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PROCEEDINGS

OF THE

AMERICAN PHILOSOPHICAL SOCIETY.

VOL. IV. JUNE TO DEC. 1843. No. 28.

Stated Meeting, June 16.

Present, twenty-nine members.

Dr. CHAPMAN, Vice-President, in the Chair.

Letters were received:—

From the Secretary of the Zoological Society of London, dated 4th Oct. 1842, acknowledging the receipt of the Proceedings of this Society:—

From B. Silliman, Jr. Esq., dated New Haven, 5th June, 1843; Robert Gilmor, Esq., dated Baltimore, 20th April, 1843; Rev. Alonzo Potter, dated Union College, 5th June, 1843; and J. H. Alexander, Esq., dated Baltimore, 12th June, 1843, in reference to the centennial celebration; and John W. Gibbs, Esq., dated Philadelphia, 26th May, 1843, presenting a fac simile of certain writings of Franklin.

The following donations were announced:—

FOR THE LIBRARY.

Proceedings of the Royal Society of London. No. 56. Dec. 8, 1842, to March 23, 1843. 8vo.—*From the Society.*

The Transactions of the Royal Irish Academy. Vol. XIX. Part II. Dublin, 1843. 4to.—*From the Academy.*

Journal de Pharmacie et de Chimie. 8vo. Troisième Série. Tome 2. Nov. Dec. 1842. Tome 3. Jan. Fev. 1843.—*From the Society.*

Statistics of the United States of America, as collected and returned by the Marshals of the several Judicial Districts under the 13th

MFM.

1843

Section of the Act for taking the Sixth Census, June 1, 1840. Folio.—*From the Department of State.*

Sixth Census, or Enumeration of the Inhabitants of the United States, as corrected at the Department of State, in 1840. Washington, 1841. Folio.—*From the same.*

Compendium of the Enumeration of the Inhabitants, and Statistics of the United States, as obtained at the Department of State, from the Returns of the Sixth Census, by Counties and principal Towns, exhibiting the Population, Wealth, and Resources of the Country. Prepared at the Department of State. Washington, 1841. Folio.—*From the same.*

A Census of Pensioners for Revolutionary or Military Services; with their Names, Ages, and Places of Residence, as returned by the Marshals of the several Judicial Districts, under the Act for taking the Sixth Census. Washington, 1841. 4to.—*From the same.*

Journal of the Franklin Institute. Vol. V. Nos. 5 and 6, for May and June, 1843. 8vo.—*From Dr. R. M. Patterson.*

The Twenty-seventh Report of the Directors of the American Asylum at Hartford, for the Education and Instruction of the Deaf and Dumb. Hartford, Conn., 1843. 8vo.—*From the Directors.*

The Medical News and Library. Vol. I. No. 6. June, 1843. 8vo.—*From Lea & Blanchard.*

On the Theory and Construction of a Seismometer, or Instrument for Measuring Earthquake Shocks and other Concussions. By James D. Forbes, F.R.S. From the Transactions of the Royal Society of Edinburg. Vol. XV. Part 1. 4to.—*From the Author.*

On the Ganglia and other Nervous Structures of the Uterus. By Robert Lee, M.D. F.R.S. London, 1842. 4to.—*From the Author.*

Guano: its Analysis and Effects; illustrated by the latest Experiments. London, 1843. 8vo. Pamphlet.—*Donor unknown.*

Imanuelis Swedenborgii Sacræ Regiæ Majestatis Regnique Sueciæ Collegii Metallici Assessoris Regnum Subterraneum sive Minerale de Cupro et Orichalco, &c. &c. Cum Figuris Æneis. Dresdæ et Lipsiæ, 1734. Folio.—*From Wm. Chauvenet, Esq.*

Letters from a Father to his Sons in College. By Samuel Miller, D.D. Philadelphia, 1841. 12mo.—*From the Author.*

Discourse delivered in the Chapel of Nassau Hall, before the Literary and Philosophical Society of New Jersey, at its First Annual

Meeting, Sept. 27, 1825. By Samuel Miller, D.D. 8vo.—*From the same.*

A Discourse on the Early Constitutional History of Connecticut, delivered before the Connecticut Historical Society, May 17, 1843. By Leonard Bacon. 8vo.—*From Phil. Ripley, Esq.* Also a copy from the Author.

Army and Navy Chronicle. Vol. I. No. 20. Washington, May 25, 1843. Containing the List of the Officers and Members of the National Institute of Washington.—*From the Hon. J. C. Spencer.*

Fac Simile of a Letter from Benjamin Franklin, to Cadwallader Colden, dated New York, April 5, 1744; giving an Account of the First Organization of the American Philosophical Society.—*From John W. Gibbs.*

Map of Washington Square, Philadelphia: containing the Botanical Names of the Trees, Latin and English.—*From Thomas Sinclair.*

ADDITION TO THE LIBRARY BY PURCHASE.

Astronomische Nachrichten. Prof. Schumacher, Editor. Nos. 474, 475, 476. Altona, April, 1843. 4to.

FOR THE CABINET.

Ancient Indian Relic, found in East Tennessee, of the use of which the Cherokees of the present day have no tradition.—*From John C. Trautwine, Esq.*

Ancient Indian Pipe, dug up near the river Hewasnee, in Polk County, Tennessee.—*From the same.*

Mr. Ord announced the decease of Noah Webster, LL.D., a member of the Society, who died May 28, 1843, aged 85.

Mr. Kane, on behalf of the President, announced the decease of Eugene A. Vail, a member of the Society, at Paris, in the winter of 1842–43.

Dr. Hare mentioned, that he is engaged in perfecting an apparatus for the analysis of those organic bodies, which contain carbon, oxygen, and hydrogen, in such proportions that they may be considered as hydrates of carbon.

In accordance with the recommendation of the Committee on Mr. Parker's claim, the Treasurer was authorized to de-

liver possession of the Museum property to his representative, and to transfer the policy of insurance thereon to the Museum Company.

The Committee of Arrangements for the Celebration of the Hundredth Anniversary reported their proceedings in full; (*See the Appendix to Proceedings No.* 27,) and the resolutions presented by them were unanimously adopted.

So much of the resolution submitted by Professor Henry at the Anniversary Meeting as relates to the celebration of future anniversaries, was referred to a Committee, consisting of Prof. Henry and the four Secretaries of the Society.

The remainder of Prof. Henry's resolution was referred to a Committee, consisting of Dr. Ludlow, Prof. Rogers, Prof. Bache, Prof. Henry, and Mr. G. W. Smith.

Stated Meeting, July 21.

Present, twenty-three members.

Mr. Du Ponceau, President, in the Chair.

Letters were received:—

From Baron Ladoucette, dated Paris, Feb. 26, 1843, (being a duplicate,) making acknowledgments upon his election to membership:—

From the Secretary of the Royal Academy of Sciences, dated Paris, April 17, 1843;—the Professors of the Museum of Natural History, dated Paris, May 10, 1843;—the Secretary of the Literary and Historical Society of Quebec, dated May 17, 1843;—the Corresponding Secretary of the Academy of Natural Sciences of Philadelphia, dated July 4, 1843,—severally acknowledging the receipt of donations from this Society:—

And from the President and the Rev. Dr. Ludlow, acceding to the wishes expressed by the Society at its last meeting.

The following donations were announced:—

FOR THE LIBRARY.

Flora Batava, ou Figures et Descriptions de Plantes Belgiques. Par Jan Kops et J. E. Vander Trappen. Livraison, No. 128. 4to. *From His Majesty the King of the Netherlands.*

The African Repository and Colonial Journal. June, 1843. 8vo.—*From the American Colonization Society.*

The American Journal of Science and Arts. Vol. XLV. No. 1. For April, May and June, 1843. 8vo.—*From the Editors.*

Tijdschrift voor Natuurlijke Geschiedenis en Physiologie. Tiende Deel, 1e stuk. Leiden, 1843. 8vo.—*From J. Van der Hoeven, and W. H. de Vriesse.*

Journal of the Franklin Institute. Third Series. Vol. VI. July, 1843. No. 1. 8vo.—*From Dr. R. M. Patterson.*

The American Journal of the Medical Sciences. No. XI. New Series. July, 1843. 8vo.—*From Dr. Hays.*

Minutes of the General Assembly of the Presbyterian Church in the United States of America, A. D. 1843. Philadelphia, 1843. 8vo.—*From John K. Kane, Esq.*

Mittlere Oerter von 12,000 Fix Sternen, für den Anfang von 1836, abgeleitet aus den Beobachtungen auf der Hamburger Sternwarte von Carl Rümker. Hamburg, 1843. 4to.—*From the Author.*

A Complete Treatise on Field Fortification, with the General Outlines of the Principles regulating the Arrangement, the Attack, and the Defence of Permanent Works. By D. H. Mahon. New York, 1836. 18mo.—*From the Author.*

A Letter to a Philosopher, in reply to some recent attempts to vindicate Berkeley's Theory of Vision; and in further Elucidation of its Unsoundness. By the Author of "A Review of Berkeley's Theory," &c. Samuel Bailey. 8vo.—*From Henry C. Carey, Esq.*

Physiology Vindicated, in a Critique on Liebig's Animal Chemistry. By Charles Caldwell, M.D. Jeffersonville, Ia., 1843. 8vo.—*From the Author.*

Annual Report of the Interments in the City and County of New York, for the Year 1842; with Remarks thereon, and a Brief View of the Sanitary Condition of the City. By John H. Griscom, M.D., City Inspector. 8vo.—*From the Author.*

Robert et Léontine, ou La Moselle au XVIe Siècle, orné du Siége de la Ville de Metz et de trois airs notés; par J. C. F. Ladoucette. Seconde Édition. Paris, 1843. 8vo.—*From the Author.*

L'Art de Vérifier les Dates, depuis l'Année 1770 jusque nos jours. 3e Partie. Tome XVII. Publié par M. le Marquis de Fortet. Paris, 1842. 8vo.—*From D. B. Warden, Esq.*

An Address delivered at Laurel Hill Cemetery, on the Completion of

a Monument erected to the Memory of Thomas Godfrey, June 1, 1843. By G. Emerson, M.D. 8vo.—*From the Author.*

ADDITION TO THE LIBRARY BY PURCHASE.

Annales de Chimie et de Physique. Troisième Série. Tome VII. Janvier, Février, Mars et Avril, 1843. 8vo.

Mr. Kane announced the decease of the Hon. Hugh S. Legaré, a member of the Society, who died at Boston in the month of June last.

Two communications were presented from Professor Rümker, of Hamburg, containing some occultations of fixed stars lately observed by himself and his assistant, and all the observations which he has hitherto made on the "comet, lately discovered by M. Mauvois at Paris."

The following gentlemen were elected members of the Society:—

William H. Dillingham, of Philadelphia.
Count Cancrine, of St. Petersburg, Russia.
M. Stanislas Julien, of Paris.
John Downes, of Philadelphia.

Stated Meeting, August 18.

Present, nineteen members.

Mr. Du Ponceau, President, in the Chair.

Letters were received:—

From Ambrose Baber, Esq., of the U. S. Legation at Turin, dated 5th June, 1843, transmitting certain donations to the Society:—and

From Mr. Orazio de Attellis de Santangelo, dated 24th July, 1843, transmitting a donation from Don Paolo Anania de Luca, of Naples.

The following donations were announced:—

FOR THE LIBRARY.

Memoirs of the Royal Astronomical Society of London. Vol. XII., XIII., XIV. London, 1842–43. 4to.—*From the Society.*

Proceedings of the Royal Astronomical Society. Vol. V. Nos. 30, 31. April, May, 1843. 8vo.—*From the same.*

Journal of the Royal Geographical Society of London. Vol. XII. Part II. 1842. 8vo.—*From the Society.*

Astronomical Observations made at the Radcliffe Observatory, Oxford, in the Year 1840. By Manuel J. Johnson, M.A., Radcliffe Observer. Vol. I. Published by Order of the Radcliffe Trustees. Oxford, 1842. 8vo.—*From the Radcliffe Trustees.*

A Discourse on the Qualifications and Duties of an Historian. Delivered before the Georgia Historical Society, 13th Feb. 1843. By the Hon. Mitchell King. Savannah, 1843. 8vo.—*From the Georgia Historical Society.*

The African Repository and Colonial Journal. Vol. XIX. Nos. 7 and 8. July, August, 1843. 8vo.—*From the American Colonization Society.*

Journal of the Franklin Institute. Vol. VI. August, 1843. No. 2.—*From Dr. R. M. Patterson.*

Experimental Researches on Electricity. 18th Series. By Michael Faraday, Esq. From the Philosophical Transactions, Part 1, for 1843. 4to.—*From the Author.*

The British Almanac of the Society for the Diffusion of Useful Knowledge, for the Year 1840. 12mo.—*From Petty Vaughan, Esq.*

The Medical News and Library. Vol. I. August, 1843. No. 8. 8vo.—*From Lea & Blanchard.*

An Attempt to Develop the Law of Storms by means of Facts, arranged according to Place and Time; and hence to point out a Cause for the Variable Winds, with the view to practical use in Navigation. Second Edition, with Additions. By Lieut. Col. W. Reid, C.B., F.R.S. London, 1841. 8vo.—*From the Author.*

Esame e Proposta di ciò che Manca per la Compilazione di un Trattato di Acustica Compiutô ed applicabile alle arté di Paolo Anania de Luca. Napoli, 1841. 8vo.—*From the Author.*

Storia della Filosofia per Lorenzo Martini. Serie III. 2 Vols. 8vo. Milan, 1842.—*From the Author.*

Vita Francisci Canaverii. Auctore Laurentio Martinio. Editio altera. Augustæ Taurinorum, 1843. 8vo.—*From the same.*

Catalogue of Ancient and Modern Books in the Various Departments of Science and Belles-Lettres. Library of the late Isaac R. Jackson. Philadelphia, 1843. 8vo.—*From Sears C. Walker, Esq.*

ADDITION TO THE LIBRARY BY PURCHASE.

Astronomische Nachrichten. Nos. 477, 478, 479. May, 1843. Nos. 480, 481. July, 1843. 4to.

Dr. Patterson announced the decease of Robert Adrain, LL.D., a member of the Society, who died at New Brunswick, N. J., on the 10th instant, aged 68: and thereupon Dr. Patterson was appointed to prepare a notice of the life and scientific labours of the deceased.

Mr. Lea read a continuation of his paper "On New Fresh Water Shells," which includes descriptions of twelve new species of Unio, most of them from Florida, to which he has given the names, U. Buckleyi, U. Buddianus, U. Minor, U. amygdalum, U. occultus, U. Monroensis, U. aheneus, U. fuscatus, U. trosculus, U. superbus, U. aratus, U. neglectus.

The communication of Mr. Lea was referred to a Committee, consisting of Mr. T. R. Peale, Dr. Hays, and Mr. Ord, and permission was given him to publish an abstract of it in anticipation of the Transactions.

Mr. Lea, from the Publication Committee, announced the completion of the 8th Vol., N. S., of the Transactions, and made a special report. From this it appeared, that the number of subscribers at this time is 113; that 77 copies are distributed by donation and in exchanges, and that 9 copies of the volume have been sold; making an aggregate number of 199. The report announced that Vol. 9 is now in the press, and that the available funds of the Committee amount to $957, of which, however, a part remains uncollected.

Stated Meeting, September 15.

Present, thirty-five members.

Mr. Du Ponceau, President, in the Chair.

Dr. W. W. Gerhard, and William H. Dillingham, Esq., members elect, were presented, and took their seats.

Letters were received:—

From W. H. Dillingham, Esq., dated 14th Sept. 1843, making acknowledgments on the occasion of his election to membership:—

From the Secretary of the Royal Society of Northern Antiquaries, dated Copenhagen, 18th April, 1843, transmitting a donation:—

From the General Secretary of the Central Commission of the Geographical Society of Paris, dated 29th April, 1843, acknowledging the receipt of the 2d part of Vol. 8 of the Transactions:—

From Wm. W. Andrews, Esq., U. S. Consul at Malta, dated 3d July, 1843, transmitting a catalogue of the minerals heretofore presented to the Society:—

From Col. Von Abrahamson, dated Odensé, Denmark, transmitting a copy of the Memoirs of the Literary Society of Fionia:—

From James Ombrosi, Esq., U. S. Consul at Florence, dated 5th July, 1843, announcing the delivery to the Grand Duke of Tuscany of his diploma of membership: and thereupon the Librarian was instructed to transmit to H. I. and R. H. a copy of the Transactions, N. S., suitably bound.

The following donations were announced:—

FOR THE LIBRARY.

Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen. Erster Band. Von der Jahren, 1838—1841. Mit fünf Steindrucktafeln. Göttingen, 1843. 4to.—*From the Royal Society of Sciences of Göttingen.*

Archives du Muséum d'Histoire Naturelle. Tome 2e. Livraison 3e. Tome 3e. Livraisons 1 et 2. Paris, 1841. 4to.—*From the Professors of the Museum.*

Journal Asiatique. 3e Série. Tome XIV. No. 79. 1842. 4e Série. Tome I. Nos. 1, 2, 3, 4. 1843. 8vo.—*From the Asiatic Society of Paris.*

Annales des Mines. 4e Série. Tome II. 5e Livraison de 1842. 8vo.—*From the Engineers of Mines, Paris.*

Bulletin de la Société de Géographie. Deuxième Série. Tome

XVIII. Paris, 1842. 8vo.—*From the Geographical Society of Paris.*

Boletin Enciclopedico de la Sociedad Economica de Amigos del Pais. Año 4o. Tomo 2o. No. 5o. Valencia, 1843. 8vo.—*From the Society.*

Mémoires de la Société Royale des Antiquaires du Nord. 1840—1843. Section Américaine. Copenhague, 1843. 8vo.—*From the Society.*

Mémoire sur la Découverte de l'Amérique au Dixième Siècle. Par Charles Christian Rafn. Publié par la Société Royale des Antiquaires du Nord. Second Tirage. Copenhague, 1843. 8vo.—*From the same.*

Aktstykker, for Storste Delenhidtil utrykte, til Oplysning især af Danmarks indre Forhold i ældre Tid. Odensé, 1841. 4to.—*From the Literary Society of Fionia.*

Diem Natalem Augustissimi Regis Caroli Johannis; Nec non Memoriam Regni ab Eo ante quartam Sæculi partem adîti ab Universitate Regia Fredericiana die XXVI, Januarii, MDCCCXLIII; Indicit Collegium Academicum. Christianiæ, 1843. 4to.—*From the Royal University in Christiana, Norway.*

Descriptio Ornamentorum Aureorum et Nummorum Sæculi VIII^{vi} et IX^{ni}, in Prædio Hoen, in Parochia Eger in Diocesi Norvegiæ Agershusiensi, Anni MDCCCXXXIV., mense Augusto, Repertorum; Auct. Chr. Andr. Holmboe. Christianiæ, 1835. 4to.—*From the same.*

Delphinus Leucopleurus. Nova Species Descripta ab H. Rasch, Conservatore Musei Zoologici Universitatis Regiæ Fredericianæ. Christianiæ, 1843. 4to.—*From the same.*

De Mutationibus, quas subit Momentum Virgæ Magneticæ partim ob Temporis, partim ob Temperaturæ Mutationes. Auctore Christophoro Hansteen. Christianiæ, 1842. 4to.—*From the same.*

Semina Horti Botanici Christianiensis. 1842. 4to.—*From the same.*

Flora Batava, ou Descriptions et Figures de Plantes Belgiques. Par Jan Kops, et J. E. Van der Trappen. Nos. 126 et 127. 4to.—*From His Majesty the King of the Netherlands.*

Tijdschrift voor Natuurlijke Geschiedenis en Physiologie. Negende Deel. 2e en 3e Stuk, 4e Stuk, 1842. Leiden, 1842. 8vo.—*From the Editors.*

Journal of the American Oriental Society. Vol. I. No. 1. 1843. 8vo. Boston, 1843.—*From the Society.*

Proceedings of the Academy of Natural Sciences of Philadelphia. Nos. 26, 27, 28, 29. 1843. 8vo.—*From the Academy.*

Journal of the Franklin Institute of the State of Pennsylvania. 3d Series. Vol. VI. Sept. 1843. 8vo.—*From Dr. Patterson.*

The Medical News and Library. Vol. I. Sept., 1843. No. 6. 8vo.—*From Lea & Blanchard.*

An Essay on Calcareous Manures. Third Edition. By Edmund Ruffin. Petersburg, Va., 1842. 8vo.—*From the Author.*

Description of Twelve New Species of Uniones. By Isaac Lea. Read before the American Philosophical Society, August 18, 1843. A printed Sheet, dated August 19, 1843.—*From the Author.*

Supplément aux Vindiciæ Sinicæ, ou Dernière Réponse à M. Stan. Julien. Par G. Pauthier.—*From the Author.*

On the Abuse of the Pardoning Power. By Samuel R. Wood. Philadelphia, 1839. Pamphlet. 8vo.—*From Dr. P. Tidyman.*

The President announced the decease of Mr. J. N. Nicollet, a member of the Society, who died on the 11th Sept. 1843, at Washington:—and thereupon Dr. Ducatel of Baltimore, was appointed to prepare a notice of his life and scientific labours.

Dr. B. H. Coates called the attention of the members to the head bones of a fish found upon Squam Beach, N. J., called by the fishermen, the Head-fish.

Professor Bache stated, that he had continued during the past summer the series of observations for magnetic dip and intensity, a notice of which he had formerly submitted to the Society.

The places of observation were Troy, Schenectady, Utica, Syracuse, Geneva, Rochester, Niagara Falls, Oswego and Ogdensburg, in New York State, and Toronto, Montreal and Quebec, in Canada. The same instruments were used as formerly, namely, a Robinson dipping circle with common and Lloyd needles for the usual observations of the dip, and for those of dip and intensity by the statical method of Prof. Lloyd, and a vacuum apparatus for horizontal intensity by the method of vibrations. Similar observations were made at Philadelphia before and after the journey, to connect these results with others previously obtained. Prof. Bache had the pleasure and advantage of the aid of Prof. Foster of Union College, in making these observations. The results of the Pennsylvania survey are connected directly with that now executing in the British Provinces, by the ob-

servations at Toronto and Philadelphia, by Lieut. Lefroy and Prof. Bache. Other comparisons will probably be had through the observations at Montreal and Quebec.

Professor Bache expressed the hope that the magnetic survey of the State of New York, would not be left to the desultory efforts of individuals, but would be undertaken and rendered systematic and complete, by the authorities of the State.

Professor Frazer made some remarks on the tornado of Aug. 5th, and exhibited a specimen of earth, apparently silicious, which was deposited by it in considerable quantity, within the chimneys of a house over which it passed in Delaware county, and which he regarded as bearing on the question whether the rain proceeded from a water-spout. Prof. F. had traced the line, which formed the eastern limit of the tornado, and found it to be a curve: the western line he had been unable to define. He remarked, that where its path lay through a wood, the large trees were generally prostrated, while the small ones escaped.

A similar remark had been made by Professor Bache as to the comparative destruction of the larger and smaller trees in the paths of several tornadoes which he had witnessed: and it was observed by Mr. Hassler, that it was of universal occurrence, and was referrible to the fact that the roots of young trees penetrate more deeply into the ground than those of older ones, and are besides proportionably larger.

The phenomena presented by the tornado of August had been observed in different places by others of the members. The minimum of rain, which was marked as having fallen within its range, was ten inches. The district over which it passed was very limited, but its path was such as to cover the entire course of the principal streams of Delaware county. This circumstance was adverted to as explaining the desolating height to which the waters were raised.

Mr. Kane, Reporter, announced that the Discourse of Dr. Patterson at the Centennial Celebration, with the proceedings by which it was introduced, had been printed, and was now ready for distribution. He mentioned that the Proceedings of the Centennary Meeting of the Society would be in print before the next meeting.

The Committee on the Celebration was authorized to make distribution of copies of the centennary proceedings.

On motion of Prof. Bache, the communication, entitled "On two Storms which occurred in February 1842, by Elias Loomis, of Western Reserve College, Ohio," read before the Society on the 26th of May, was referred to a Committee, consistting of Prof. Frazer, Prof. Bache, and Dr. Emerson.

The communications, entitled "On the Instruments of the Astronomical Observatory of the U. S. Military Academy, West Point," and "the Observations made upon the Comet of Feb. 1843," by Prof. W. H. C. Bartlett of the U. S. Military Academy, read 30th May, were referred to a Committee, consisting of Mr. Walker, Prof. Bache, and Prof. Kendall.

On motion of Mr. Lea, the communication, entitled "Description of some new Fossil Shells, from the Tertiary of Petersburg, Va.," by Henry C. Lea, Esq., read 30th May, was referred to a Committee, consisting of Prof. Booth, Mr. T. R. Peale, and Dr. Hays. Mr. Lea had permission to publish an abstract of his communication in anticipation of the Transactions.

Stated Meeting, Oct. 6.

Present, twenty-eight members.

Mr. Du Ponceau, President, in the Chair.

Mr. John Downes, a member elect, was presented, and took his seat.

Letters were received:—

From Hon. A. P. Upshur, Secretary of State, dated Oct. 1, 1843, transmitting eighteen volumes of public documents:—

From the Secretary of the Academy of Sciences of Turin, transmitting donations to the Library:—

From the Secretary of the Zoological Society, dated London, Dec. 2, 1842;—and from the Secretary of the Zoological Society of London, dated June 27, 1843, acknowledging the receipt of the Transactions and Proceedings of this Society:—

From James Reynolds, Esq. dated London, July, 1843, relating to the Oriental translation fund.

The following donations were announced:—

FOR THE LIBRARY.

Senate Journal, 2d Session, 27th Congress, 1841–42. 8vo. House Journal, 2d Session, 27th Congress, 1841–42. 8vo. Reports of Committees, 2d Session, 27th Congress, 1841–42. 5 Vols. 8vo. Senate Documents, 2d Session, 27th Congress, 1841–42. 5 Vols. 8vo. Executive Documents, 2d Session, 27th Congress, 1841–42. 6 Vols. 8vo.—*From the Hon. A. P. Upshur, Secretary of State.*

Report of the Twelfth Meeting of the British Association for the Advancement of Science, held at Manchester, in June, 1842. London, 1843. 8vo.—*From the British Association.*

Address to the Royal Geographical Society of London; delivered at the Anniversary Meeting on the 22d of May, 1843. By W. R. Hamilton, Esq. F. R. S., President. London, 1843. 8vo.—*From the Society.*

Society for the Encouragement of Arts, Manufactures and Commerce. Premiums for the Sessions, 1843–44, 1844–45.—*From the Society.*

Proceedings of the Royal Astronomical Society of London. Vol. V. No. 32. June, 1843. 8vo.—*From the Society.*

Proceedings of the Geological Society of London. Index to Vol. III. Vol. IV. Part 1. No. 92. 8vo.—*From the Society.*

List of the Geological Society of London, 1843. 8vo.—*From the same.*

Proceedings of the Zoological Society of London. Part X. 1842. 8vo.—*From the Society.*

Reports of the Council and Auditors of the Zoological Society of London, read at the Annual General Meeting, April 29, 1843. 8vo.—*From the same.*

Annales des Mines. Quatrième Série. Tome II. VIe Livraison de 1842, Novembre, Décembre. 8vo.—*From the Engineers of Mines, Paris.*

Memorie della Reale Accademia delle Scienze di Torino. Serie Seconda. Tomo II. III. IV., 1840–41–42. 4to.—*From the Academy.*

Catalogus Senatus Academici, et omnium alicujus gradus laurea ex-

ornatorum, in Collegio Dartmuthensi, Hanoveræ, in Republica Neo-Hantoniensi. 1843. 8vo.—*From the Northern Academy of Arts and Sciences.*

The African Repository and Colonial Journal, September, 1843. 8vo.—*From the American Colonization Society.*

A Catalogue of the Library of Brown University, in Providence, Rhode Island. With an Index of the Subjects. Providence, 1843. 8vo.—*From the Rev. Dr. Wayland.*

The Medical News and Library. Vol. I. No. 10. 1843. 8vo.—*From Lea & Blanchard.*

The American Journal of the Medical Sciences. No. 12. New Series. October, 1843. 8vo.—*From Dr. Hays.*

The Zoologist: an Illustrated Monthly Magazine of Natural History, and Journal for recording Facts and Anecdotes relating to Quadrupeds, Birds, Reptiles, Fishes, &c. &c. Edward Newman, Esq. F.L.S., F.Z.S., Editor. John Van Voorst, Publisher. London, 1843. 8vo. Nos. 1 to 8, inclusive.—*From the Editor.*

Osservazioni Geologiche sui Terreni delle Formazioni Terziaria e Cretacea in Piemonte. Si Angelo Sismonda, Prof. di Mineralogia. Extracted from the 5th Vol. 2d Series, of the Memoirs of the Royal Academy of Sciences of Turin.—*From the Author.*

Fisica de' Corpi Ponderabili ossia Trattato della Costituzione Generale de' Corpi, del Cavaliere Amedeo Avogadro. Tomo III. 1840. Tomo IV. 1841. Torino. 8vo.—*From the Author.*

Jahrbucher der Literatur. Januar, Dezember, 1842. Nos. 97 to 100, inclusive. Wien, 1842. 8vo.—*From Baron Von Hammer Purgstall.*

Beitrag zur Auflösung der Höheren Gleichungen, von Dr. Anton Vallus. Wien, 1843. 8vo.—*From the Author.*

Progress of the United States in Population and Wealth in Fifty Years, as exhibited by the Decennial Census. By George Tucker. New York, 1843. 8vo —*From the Author.*

Report of the Proceedings of an Indian Council at Cattaraugus, in the State of New York, held Sixth Month, 1843. Baltimore, 1843. 8vo.—*From George M. Justice.*

ADDITIONS TO THE LIBRARY BY PURCHASE.

Astronomische Nachrichten. No. 482. July 22, 1843. 4to.

Annales de Chimie et de Physique. Troisième Série. Tome VIII. Mai, 1843. 8vo.

FOR THE CABINET.

A large Seal for the Society's foreign correspondence.—*From Messrs. Gobrecht and Franklin Peale.*

A Plate of Engravings of Coins, by Mr. Asa Spencer, made by the Ruling Machine.—*From Dr. Hays.*

Mr. Kane, Reporter, laid upon the table the closing number of the 2d volume of the Proceedings of the Society, and the 3d volume, containing the Proceedings of the Centennary Meeting.

The Committee, to whom Mr. Lea's paper was referred at the last meeting, reported in favour of its publication in the Transactions: and the publication was ordered accordingly.

On motion of Prof. Bache, the communication, entitled "On Hippuric Acid," by Prof. Booth and Mr. Boyé, read on the 29th of May, was referred to a Committee consisting of Prof. Frazer, Prof. Bache, and Dr. Hare:—and

The communication, entitled "On the Physical Phenomena attending Solar Eclipses," by Prof. Stephen Alexander, of Princeton, read on the 29th of May, was referred to a Committee consisting of Mr. Walker, Professor Bache, and Mr. Downes.

Dr. Ludlow, from the Committee appointed on the 16th June, 1843, on the subject of a report of the Society's doings during the past century, reported at length, and presented certain resolutions.

The first resolution from the Committee was adopted as follows:—*Resolved*, That it is expedient to have prepared a report of the scientific labours, during the past century, of the American members of the Society.

The consideration of the 2d, 3d, and 4th resolutions, prescribing the manner in which the report should be prepared, was postponed to the next meeting, and—

The Society adjourned to meet on the 13th instant.

Adjourned Meeting, Oct. 13.

Present, twenty-six members.

Dr. PATTERSON, Vice-President, in the Chair.

The Committee, to whom Prof. Loomis's communication on the Storms of February, 1842, was referred at the meeting on the 15th of September, reported in favour of its publication in the Transactions:—and the publication was ordered accordingly.

On motion of Prof. Frazer, the communications made by Mr. R. C. Taylor at the centennary meeting, "On the Geology of a Portion of the Island of Cuba," and "On some Fossil Ferns of the family Sigillaria in the Coal Strata of Pennsylvania," were referred to a Committee, consisting of Prof. Frazer, Prof. Booth, and Prof. Bache.

The Society resumed the consideration of the resolutions reported by a Committee at the last meeting; and after discussion, it was resolved as follows:—

1. That for the purpose of preparing the elements of the proposed report, it is expedient that the several subjects to be embraced in it should be distributed under appropriate general titles, and that a Committee of one or more members should be appointed to report on the scientific labours included under each title.

2. That the 2d, 3d, and 4th resolutions reported by the Committee at the last meeting, be referred back to the same Committee, with instructions to report such a distribution of the scientific labours of the members as is contemplated by the foregoing resolution, and that they also nominate one or more members to constitute each of the several Committees.

3. That on the report of that Committee being made, the Society will proceed to consider the same, and to determine the number of such Committees to be appointed, and the number of members to constitute the same respectively: and that the Society will then appoint the said Committees from among the names reported by the Committee under the 2d resolution, and such others as may be nominated at the meeting.

4. That when the reports of the several Committees shall hereafter be presented to the Society, such disposition and action shall be had in relation thereto as shall be judged proper.

Stated Meeting, October 20.

Present, twenty-eight members.

Dr. Bache, Vice-President, in the Chair.

Letters were received and read:—

From the Librarian of Brown University, acknowledging the receipt of the 26th and 27th numbers of the Proceedings: and—

From S. S. Haldeman, Esq., dated Columbia, Pa., 4th Oct. 1843, transmitting a copy of the sixth number of his Monograph of Fresh Water Univalves.

The following donations were announced:—

FOR THE LIBRARY.

Proceedings of the Geological Society of London. Vol. IV. Part 1. No. 93. 1843. 8vo.—*From the Society.*

Title and Index to the Fifth Volume of the Monthly Notices of the Royal Astronomical Society.—*From the Society.*

The Transactions of the Linnean Society of London. Vol. XIX. Part Second. London, 1843. 4to.—*From the Society.*

List of the Linnean Society of London. 1843. 4to.—*From the same.*

Proceedings of the Linnean Society of London. Nos. 15 to 18, inclusive. 1842-43. 8vo.—*From the same.*

Transactions of the Royal Society of Edinburgh. Vol. XV. Part III. Containing Papers read during the Session 1842-43. Edinburgh, 1843. 4to.—*From the Society.*

Proceedings of the Royal Society of Edinburgh, 1842-43. Nos. 21, 22. 8vo.—*From the same.*

The American Journal of Science and Arts. Vol. XLV. No. 2. October, 1843. New Haven, October 5, 1843. 8vo.—*From the Editors.*

Journal of the Franklin Institute. Third Series. Vol. VI. October, 1843. No. 4. 8vo.—*From Dr. R. M. Patterson.*

Lectures on the Wave-Theory of Light. By the Rev. H. Lloyd, D.D., F.R.S., &c. &c. Printed by order of the Board of Erasmus Smith. Dublin, 1841. 8vo.—*From the Author.*

A Monograph of the Fresh Water Univalve Mollusca of the United States, including Notices of Species in other parts of North America. By S. Stehman Haldeman. Philadelphia, January, 1843. No. 6. 8vo.—*From the Author.*

The Foulahs of Central Africa, and the African Slave Trade. By W. B. Hodgson, of Savannah, Georgia. 1843. 8vo.—*From the Author.*

Catalogue of Books in the Library of Brown University. Providence, R. I., 1826. 8vo.—*From Robert Hare, M.D.*

Incorporated Society for the Propagation of the Gospel in Foreign Parts: Reports for the Years 1841 and 1842. London, Office of the Society. 8vo.—*From the Rev. Benjamin Dorr, D.D.*

A Historical Account of Christ Church, Philadelphia, from its Foundation, A. D. 1695, to A. D. 1841. By the Rev. Benjamin Dorr, D.D. Philadelphia, 1841. 8vo.—*From the Author.*

Abstract of a Paper read before the American Philosophical Society, May 20, 1843, entitled, "Descriptions of some New Fossil Shells from the Tertiary of Petersburg, Virginia." By Henry C. Lea.—*From the Author.*

ADDITIONS TO THE LIBRARY BY PURCHASE.

Astronomische Nachrichten. Nos. 483 to 486, inclusive. August, 1843. 4to. Title and Index to Vol. XX. Altona.

Scientific Memoirs, selected from the Transactions of Foreign Academies of Science, &c. Edited by Richard Taylor, F.S.A. Vol. III. Part XII. August, 1843. London. 8vo.

Niles' National Register. From September, 1842, to March, 1843. Vol. 63. From March, 1843, to September, 1843. Vol. 64. Folio.

The Committees to whom were referred Prof. Stephen Alexander's communication, "On the Physical Phenomena attending Solar Eclipses,"—Prof. Bartlett's communications describing the Astronomical Observatory and Instruments at West Point, and giving an account of observations made there, —Mr. R. C. Taylor's two communications, entitled, "Memoir

on the Character and Prospects of the Copper Region of Gibara, and a Sketch of the Geology of the North-east part of the Island of Cuba," and "Notice of Fossil Arborescent Ferns of the Family of Sigillaria and other Coal Plants exhibited in the Roof and Floor of a Coal Seam in Dauphin County, Penn." —and the communication by Prof. Booth and Mr. Boyé, entitled, "On the Conversion of Benzoic into Hippuric Acid,"—all of which were read at the centennary meeting,—severally reported in favour of the publication of the communications referred to them; and the publication was ordered accordingly.

Dr. Bache announced the decease of Dr. Richard Harlan, a member of the Society, who died at New Orleans on the 30th of September last.

Dr. Mease laid before the Society the Proceedings of the Medico-Chirurgical Society of Louisiana, on the occasion of Dr. Harlan's death; and they were read.

Mr. Walker gave a succinct account of the condition of the questions in regard to the orbit of the comet of February, 1843, as left by observations.

He also read an extract from the Astronomische Nachrichten of August 12, in which Mr. Clausen, an assistant at the Dorpat observatory, under date of 21st April, 1843, affirms the identity of the comet of February with that of 1668 and 1689; this conclusion coinciding with that announced to the Society by Messrs. Walker and Kendall in May last, and published in the 27th No. of the Proceedings. Mr. Clausen asserts the probable return of the comet in 1865.

Stated Meeting, November 3.

Present, thirty-three members.

Dr. Patterson, Vice-President, in the Chair.

Professor Wylie, of Indiana University, was introduced as a visiter.

Letters were received and read:—

From the Secretary of the Asiatic Society of Bengal, dated

Calcutta, March 8, 1843, and the Secretary of the Royal Society of Sciences of Göttingen, dated Aug. 17, 1843, severally acknowledging the receipt of the Transactions and Proceedings of this Society: and—

From Francis Hopkinson, Esq., dated Nov. 2, 1843, presenting to the Society an engraving from the latest portrait of his father, Vice President Hopkinson, by Sully.

The following donations were announced:—

FOR THE LIBRARY.

Flora Batava, ou Figures et Descriptions de Plantes Belgiques. Livraison, 129. 4to.—*From His Majesty the King of the Netherlands.*

Archives du Muséum d'Histoire Naturelle, Publiées par les Professeurs, Administrateurs de cette Établissement. Tome II. Livraison 4e. Tome III. Livraison 3e. 4to.—*From the Professors.*

Bulletin de la Société de Géographie. Deuxième Série. Tome XIX. Paris, 1843. 8vo.—*From the Society.*

Proceedings of the Boston Society of Natural History. Taken from the Society's Records. From January 6, 1841, to the 21st of June, 1843. 8vo.—*From the Society.*

Constitution and By-Laws of the Northern Academy of Arts and Sciences; and Second Annual Report of the Curators. Presented July 25, 1843. 8vo.—*From the Academy.*

A Catalogue of the Officers and Students of Dartmouth College. 1843–4. 8vo.—*From the College.*

Tijdschrift voor Natuurlijke Geschiedenis en Physiologie. Tiende Deel. 2e. 3e. Stuk. Leiden, 1843. 8vo.—*From the Editors.*

ADDITION TO THE LIBRARY BY PURCHASE.

Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Tome XVI. Nos. 1 to 25, inclusive. Tome XVII. Nos. 1 to 7, inclusive. Tables du Tome XV. Paris, 1843. 4to.

FOR THE CABINET.

An Engraved Portrait of the late Judge Hopkinson, from a Painting by Sully. Engraved by Sartain.—*From F. Hopkinson, Esq.*

The Committee to whom was referred Dr. Morton's communication, entitled, "An Inquiry into the Form of the Head and other Ethnographic Characters of the Ancient Egyptians," reported in favour of its publication in the Transactions;—which was ordered accordingly.

The communications presented at the centennary meeting by Mr. Breck, Mr. Tyson, Dr. Coates, and Mr. Gilpin, were referred to the Historical and Literary Committee, with power to take order in reference to the publication of them.

Professor Henry made an oral communication in regard to the application of Melloni's thermo-electric apparatus to meteorological purposes, and explained a modification, to which he had been led in the course of his researches, of the parts connected with the pile. He had found the vapours near the horizon powerful reflectors of heat; but in the case of a distant thunder storm, he had found that the cloud was colder than the adjacent blue space.

Referring to the theory of the discharge of the Leyden jar, which he had submitted to the Society some time since, Prof. Henry examined some apparent objections to it, resulting from the researches of Matteucci. The effect produced on the galvanometer by the discharge of a battery, is due to the retardation of the lesser waves of electricity, a fact which indicates the cause of Matteucci's results, when a card was pierced by the currents induced in a neighbouring wire conductor forming an open circuit.

Professor Henry described several experiments on the direct and return stroke, showing that equilibrium was restored by the same succession of oscillations; large and small needles placed in spirals forming part of an electrical circuit, being magnetized in different directions. The disturbance of the electrical plenum by a discharge of electricity was referred to, as explanatory of the induction which takes place; and the subject was applied to the explanation of various phenomena; among others, the light appearing in well authenticated cases about persons and objects in the neighbourhood of a discharge of lightning in its direct passage; and suggestions were made as to the most effectual mode of protecting powder houses, &c., from the effects of lightning.

Professor Henry examined in the same connexion, whether currents of ordinary electricity pass actually at the surface, or, like galvanic electricity, through the mass of the conductor; and he concluded that the law of conduction developed by Ohne cannot apply to the case of surface passages, as these are indicative of ordinary electricity.

Mr. Walker submitted a communication on behalf of Dr. Locke, of Cincinnati, in which he stated that he had calculated his magnetic observations, and that he was led to infer that the point of greatest magnetic intensity in North America is to the N. W. of Lake Superior, near its extremity, and not near Hudson's Bay, as supposed by Col. Sabine.

Prof. Bache remarked, that Lieut. Lefroy is now engaged in the magnetic survey of British North America, and that his results, in conjunction with those of Dr. Locke and others, would definitively settle this contested point. Prof. B. also read an extract from a letter of Col. Sabine, mentioning that he had received the term-day observations of Lieut. Lefroy at Lake Winnipeg, and that an excellent northern station for the term-days would be had at Lieut. Lefroy's winter quarters.

Prof. Bache added, that the extra term-days of July had been kept, and the daily observations made on the first ten days, at the Magnetic Observatory of the Girard College.

A communication of Prof. Henry, in continuation of his researches on electro-dynamic induction, was referred to a Committee, consisting of Dr. Patterson, Prof. Bache, and Mr. Lukens.

Dr. Ludlow, from the Committee on the report of the Society's scientific proceedings during the past century, presented a request that the Committee should be discharged from further action under the resolution of the Society: and thereupon, on his motion, the Committee was discharged.

Stated Meeting, November 17.

Present, twenty-two members.

Dr. Bache, Vice-President, in the Chair.

A letter was received from H. J. Bowditch, Esq., Clerk of the Bowditch Library, dated Oct. 28, 1843, acknowledging the receipt of the Proceedings, No. 27.

The following donations were announced:—

FOR THE LIBRARY.

Proceedings of the Academy of Natural Sciences of Philadelphia. Vol. I. Nos. 30, 31. September and October, 1843. 8vo.—*From the Academy.*

The African Repository, and Colonial Journal. Vol. XIX. No. 10. October, 1843. 8vo.—*From the American Colonization Society.*

Pantography, or Universal Drawings, in the Comparison of their Natural and Arbitrary Laws, with the Nature and Importance of Pasigraphy, as the Science of Letters, &c. By Benajah J. Antrim. Philadelphia, 1843. 8vo.—*From the Author.*

The United States Almanac; or Complete Ephemeris for the Year 1844; By John Downes: The Statistical Part by Freeman Hunt. Vol. II. Philadelphia. 8vo.—*From John Downes.*

De Skandinaviske Naturforskeres tredie Möde, i Stockholm i 1842. Christinia, 1842. 8vo.—*From Dr. Hays.*

Förhandlingar vid det af Skandinaviska Naturforskare och Läkare hållna möte i Götheborg år 1839. Götheborg, 1840. 8vo.—*From the same.*

A Lecture on the Oregon Territory. By Peter A. Browne, LL.D., of Philadelphia. 1843. 8vo.—*From the Author.*

Remarks on Tides, and the Prevailing Currents of the Ocean and Atmosphere. By W. C. Redfield. From the American Journal of Science and Arts. Vol. XLV. No. 2. 8vo.—*From the Author.*

ADDITION TO THE LIBRARY BY PURCHASE.

Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Tome XVII. Nos. 8 to 11, inclusive. 4to.

Mr. Kane announced the death of Col. John Trumbull, a member of the Society, who died recently at New York, aged 87.

Professor Bache presented observations of meteors on the mornings of the 12th and 14th of November, from midnight until 2 A. M., those having been the only clear mornings from the 9th to the 17th of the month. He submitted also some observations made by him in conjunction with Mr. Espy, for the parallax of meteors on the night of the 14th; the evening of the 13th having been so cloudy as to prevent observations. The numbers were below the ordinary average for a clear night.

Mr. G. W. Smith had also made observations on the nights of the 12th, 13th, and 14th, with results corresponding generally to those of Prof. Bache.

Dr. Hays gave an account of a case of spontaneous combustion, which occurred in a heap of Virginia coal lying in the yard of the Northern Liberties gas works, soon after a fall of rain. Dr. H. exhibited specimens of the coal partially converted into coke, and adverted to the circumstances under which the combustion had occurred, which justified the conclusion that it was spontaneous.

Dr. Patterson mentioned a work executed by Dr. Joseph Rhoads, at the farm of his father at Haverford, near Philadelphia, for procuring a supply of water for the house, which he thought might be imitated in many other situations. There were wells at the house and barn, cut through rock, and thirty-five feet deep. It occurred to Dr. Rhoads that water might be found, higher up the hill, at such a level as to give a supply at or above the level of the house itself; and he fixed, for this purpose, upon a bed of sand at the side of the road. Here he found water at the depth of five feet, and an abundant supply by digging seven feet deeper. From this source the water was conveyed to the house, at such a height that it might have run into the mouth of the old well, and it furnished a constant stream of a gallon per minute. The water in the old well was hard, that from the new source, soft. The whole cost of the operation was but thirty-five dollars.

Dr. Hays exhibited a piece of iron, weighing fifteen grains,

which had been extracted by him from the eye of a man, who was ignorant of its having entered it. The presence of some foreign substance in the ball of the eye was inferred from the constant inflammation kept up in the organ.

Stated Meeting, December 1.

Present, eighteen members.

Dr. Patterson, Vice President, in the Chair.

Letters were received:—

From the President of Harvard University, dated Oct. 18, 1843, acknowledging the receipt of No. 26 of the Proceedings:—

From William B. Rally, Esq., dated Baltimore, Nov. 20, 1843, on the subject of a proposed scientific correspondence between the Royal Academy of Bohemia and this Society:—

From Sir William Jardine, dated Jardine Hall (Scotland), Oct. 28, 1843, in regard to his work on the Scottish Salmonidæ.

The following donations were announced:—

FOR THE LIBRARY.

Journal Asiatique. Quatrième Série. Tome I. Nos. 5 et 6. Mai et Juin, 1843. 8vo.—*From the Asiatic Society of Paris.*

Annales des Mines. Quatrième Série. Tome III. 1ère Livraison. Paris, 1843. 8vo.—*From the Engineers of Mines.*

Transactions of the Historical and Literary Committee of the American Philosophical Society. Vol. III. Part I. Philadelphia, 1843. 8vo.—*One copy presented by Samuel Breck, Esq., and one copy by Job R. Tyson, Esq.*

Journal of the Franklin Institute. Vol. VI. Nov. 1843. 8vo.—*From Dr. R. M. Patterson.*

The African Repository, and Colonial Journal. Vol. XIX. No. 11. November, 1843. 8vo.—*From the American Colonization Society.*

A Manual of Gold and Silver Coins of all Nations, struck within the

past Century, &c. &c. By Jacob R. Eckfeldt and William E. Du Bois, Assayers of the Mint of the United States. Philadelphia, 1842. 4to.—*From the Authors.*

Memoir on the Reconnaissance of Rivers. Translated from the French by Lieut. W. R. Palmer, U. S. Corps of Topographical Engineers. Philadelphia, 1843. 8vo. 2 copies.—*From the Translator.*

Vierter Bericht über das Museum Francisco-Carolinum. Linz, 1840. 8vo.—*From the Rev. Professor Rally, of Baltimore.*

Fünfter Bericht über das Museum Francisco-Carolinum. Linz, 1841. 8vo.—*From the same.*

Sechster Bericht über das Museum Francisco-Carolinum. Linz, 1842. 8vo.—*From the same.*

Zweyter Bericht über die Leistungen des Vaterländischen Bereines zur Bildung eines Museums für das Erzhervogthum Oesterreich ob der Enns und das Herzogthum Salzburg. Linz, 1836. 4to. *From the same.*

Der Führer im Salzkammergute und auf der Linz. By W. B. Rally. Wien, 1841. 12mo.—*From the same.*

Die Donaureise von Regensburg bis Linz. By W. B. Rally. Wien, 1840. 12mo.—*From the same.*

Statuten des Bereines: Museum Francisco-Carolinum. Linz, 1841. 8vo.—*From the same.*

ADDITIONS TO THE LIBRARY BY PURCHASE.

Journal Général de la Littérature de France. Douzième Cahier. Décembre, 1841. 8vo.

Title and Index to L'Institut. 1ère Section, Tome X. 2ème Section, Tome VII.

Astronomische Nachrichten. Nos. 487, 488. September, 1843. 4to.

Dr. Bache announced the death of Mr. Ferdinand Rudolph Hassler, a member of the Society, at the age of 73 years, which occurred in this city on the 21st of November last.

Mr. Thomas Gilpin read an Essay on the Position of the Organic Remains, as connected with a former tropical region of the earth.

The general principle advocated in this essay is, that the position of the organic remains gives evidence that in a former zone of equatorial heat the tropical products encircled the earth uniformly, and of course under different influences from any of the present climates.

The location of this zone, for which the appellative of ***the organic zone*** is assumed, is on a south-west direction as it passes from the north-east of Europe. It is indicated from thence by the fossil remains of ancient animals, and by the consecutive coal field districts of Germany, France, England and Ireland; and it is again found through Newfoundland and Nova Scotia; and, with the exception of the granite region of New England, it is largely developed through the centre of the United States, as in Pennsylvania, Ohio, and the Mississippi country and Texas; and thus it is ***specifically established*** through ***one-third of the circuit of the earth.***

Continuing in the same course, it crosses in a straight line into the southern hemisphere, and appears in New Zealand, New Holland, part of China, the Kingdom of Ava, and the Himalaya Mountains, so as to come to the commencement of the circuit.

In all this latter part of the route, through the islands and through Asia, coal is found under the same circumstances and appearances as in Europe and America; and along all the circuit, the fossils of the great elephantine animals are more largely distributed than on any other part of the earth: they have also been taken, in this course, out of the ocean and deep sea of the British Channel, along the shores of which they are found on the recess of the waters. But the essay states that the theory does not depend upon the location of the remains of these animals, "***partly migratory***" in search of feeding ground in changes of climate, but upon vegetable and animal remains of the more resident animals of the land and ocean—for "***these have not migrated.***"

The facts claimed in favour of this essay are stated to be,—

1. That there is around the earth, in the direction described, a uniform zone of former vegetable and animal life, to which the fossil remains belong.

2. That the zone has been tropical or torrid, and has passed through nearly all the present climates.

3. That a uniformity of products has been found in many places, but not noticed heretofore to have pertained to a general connexion.

The general principles of this essay are offered as a substitution for the former hypothesis, which attributed the anterior existence of the tropical plants in the cold latitudes to an original high state of heat of the earth, and that they grew upon it when it had become cooled to a proper temperature to favour them; and a statement is made of the comparative claim of both these propositions.

The essay closes with a general reference to the changes which

have taken place in the climates and waters of the earth, by the gradual influences of the precession of the equinoxes and the perihelion position, during the astronomical course under which the sun and earth have been related to each other.

In the course of the essay, references are made largely to the geological authorities.

Professor Bache, on behalf of Dr. John Locke of Cincinnati, communicated the results of four magnetic tours in the United States and Territories. Dr. Locke proposes to communicate the details of his observations at a future day.

The Treasurer submitted his annual account; and Mr. Lea presented the Report of the Publication Committee.

Dr. Patterson, from the Committee on the erection of an Observatory, and the Committee on the Museum property, reported finally; and on his motion, the Committees were discharged.

Stated Meeting, Dec. 15.

Present twenty-four members.

Dr. Bache, Vice-President, in the Chair.

Letters were received and read:—

From the Secretary of the Society of Antiquaries, dated London, Nov. 17, 1843, acknowledging the receipt of the Transactions and Proceedings:—and

From Mr. W. P. Smith, dated Dec. 15, 1843, in reference to certain taxes on the Museum property.

The letter of Mr. Smith was referred to the Finance Committee, to report thereon.

The following donations were announced:—

FOR THE LIBRARY.

The Medical News and Library. Vol. I. No. 2. December, 1843. 8vo.—*From Lea & Blanchard.*

Introductory Lecture before the Medical Class of the University of Pennsylvania, delivered November 9th, 1843. By W. E. Horner, M.D. 8vo.—*From the Author.*

Notice of some Works, recently published, on the Nomenclature of Zoology. By Augustus A. Gould, M.D. From Silliman's Journal of Science for April. June, 1843. 8vo.—*From the Author.*

Monograph of the Species of the Genus Papa found in the United States. By Augustus A. Gould, M.D. Extracted from the Boston Journal of Natural History, Vol. III. and Vol. IV. 8vo.—*From the same.*

An Essay on Organic Remains, as connected with an Ancient Tropical Region of the Earth. By Thomas Gilpin. Philadelphia, 1843. 8vo.—*From the Author.*

In pursuance of recommendations from the Committee of Finance, the following appropriations were made for the use of the coming year, viz.—

Proceedings, - - -	$300
Binding, - - - -	200
Hall, - - - -	100
Journals, - - - -	200
General account, - - -	700

Dr. Hays mentioned that Mr. Whipple, of Missouri, is desirous of disposing of a large collection of the bones of the Tetracaulodon, now in this city; and he invited the members to unite with him in making the purchase for the Society's Museum.

Mr. Ord drew the attention of the Society to the fact, that the late Mr. Hassler was in possession of certain instruments loaned to him by Mr. Vaughan, which, by the will of Mr. Vaughan, had become the property of the Society: and the Curators were instructed to take measures for replacing them in the Society's Cabinet.

Mr. Ord also mentioned, that he had found, among the papers of the Society, a receipt from Mr. Gallatin for certain maps, lent to him by the Society to be used in the negotiations respecting the N. E. boundary of the United States: and the Librarian was instructed to take measures for recovering the maps referred to.